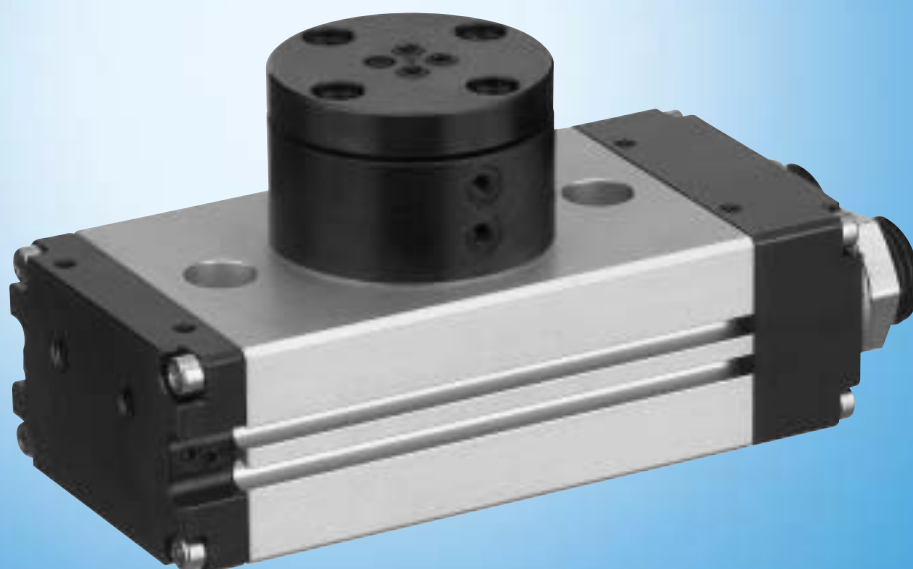
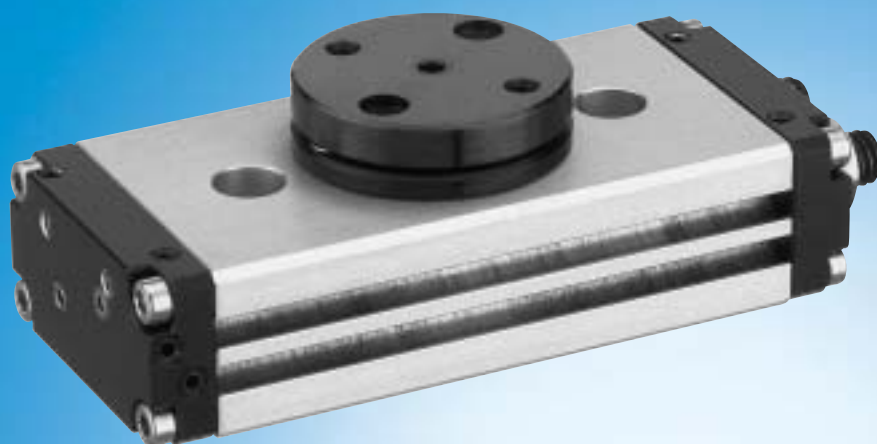


Swivel unit Series RCM



Technical Data



☐ **Products**

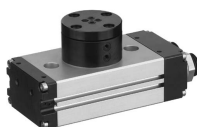
☐ ★ **Elastically/hydraulically cushioned RCM 6 – 25**

See page 3



☐ ★ **Elastically/hydraulically cushioned RCM 8 – 25 with air duct**

See page 7



Swivel unit, series RCM

Elastically/hydraulically cushioned RCM 6 – 25

Rexroth
Bosch Group



Technical Data

Type	Double-acting drive with double piston	
through	Power transmission and synchronization	
Angle of rotation	Rack and pinion	
Working pressure, max.	90°/180°	
Thermal application range	2 – 8 bar (58–116 psi)	
Medium	5 °C to +60 °C (41 °F to +140 °F)	
Installation position	Compressed air, lubricated or oil-free (10 µm)	
Materials	Housing	any
	Functional components	Aluminum anodized Die-cast aluminum made of steel



Application Area

Suitable for handling technology applications where maximum torque combined with minimum construction size is required.
The drives feature especially accurate and high-load rotary flange bearings.
Sensor slots integrated on both sides permit versatile inquiry options.

Technical Information

Type			RCM-6	RCM-8	RCM-12	RCM-16	RCM-20	RCM-25
Piston diameter		[mm]	6	8	12	16	20	25
Connection thread			M 3	M 3	M 5	M 5	M 5	M 5
Theoretical torque	(6 bar) (87 psi)	[Nm]	0,17	0,33	0,95	1,7	3,0	6,5
min. swivel times (without load)	1x180°	[s]	0,03	0,04	0,06	0,10	0,15	0,20
Repeatability	elastic	[°]	0,2	0,2	0,2	0,2	0,2	0,2
	hydraulic	[°]	–	–	0,05	0,05	0,05	0,05
max. perm. axiales bearing load		[N]	170	280	330	490	620	1160
max. perm. radiales bearing load		[N]	170	300	360	580	780	1480
Torque cylinder weight	elastic	[kg]	0,13	0,17	0,45	0,72	0,94	1,75
	hydraulic	[kg]	–	–	0,48	0,80	1,02	1,89
Max. app. torque moment of inertia	elastic	[kg cm²]	0,08	0,25	0,90	1,80	3,20	6,50
	hydraulic	[kg cm²]	–	–	90	300	400	700
adjustment range		[°]	-20 + 6	-20 + 6	-20 + 6	-20 + 6	-20 + 6	-20 + 6

Code no. for RCM-...-SE elastically cushioning

Angle of rotation	RCM-6	RCM-8	RCM-12	RCM-16	RCM-20
90°	R412000357	R412000359	R412000361	R412000363	R412000365
180°	R412000358	R412000360	R412000362	R412000364	R412000366
Angle of rotation	RCM-25				
90°	R412000367				
180°	R412000368				

Code no. for RCM-...-SH hydraulically cushioning

Angle of rotation	RCM-6	RCM-8	RCM-12	RCM-16	RCM-20
90°	–	–	R412000369	R412000371	R412000373
180°	–	–	R412000370	R412000372	R412000374
Angle of rotation	RCM-25				
90°	R412000375				
180°	R412000376				

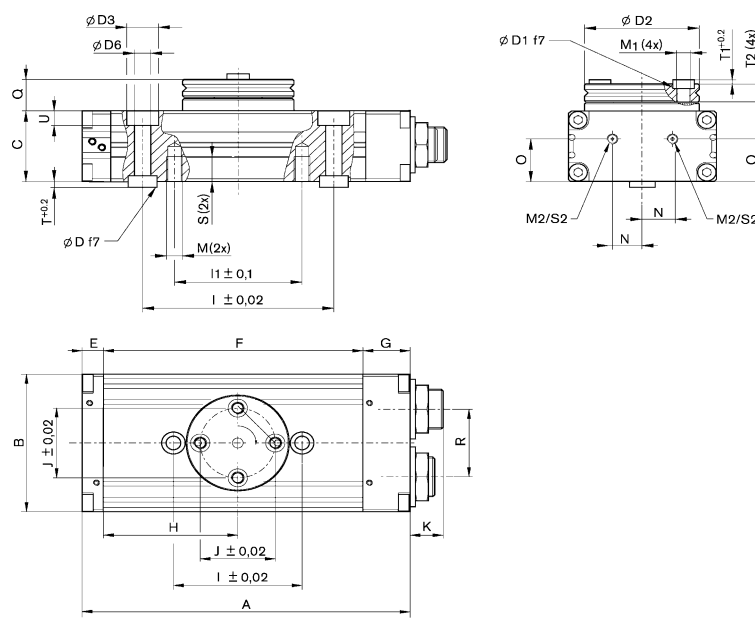
Swivel unit, series RCM

Elastically/hydraulically cushioned RCM 6 – 25

Rexroth
Bosch Group

Accessories			
Cylinder switches	Designation	Technical data	Code no.
	Series Pico, electrically (Reed contact) M8	UB = 10–30 V AC/DC	0 830 100 440
	Series Pico, electrically (Reed contact) with 3 m cable.	Pmax = 3 W/VA	0 830 100 640
	Series Pico, electrically (Reed contact) with 5 m cable.	I _{max} = 100 mA	0 830 100 641
	Series Pico, Inductive sensor with M8	UB = 10–30 V DC	0 830 100 441
	Series Pico, Inductive sensor with 3 m cable.	I _{max} = 70 mA	0 830 100 642
	Series Pico, Inductive sensor with 5 m cable.		0 830 100 643

RCM-06/-12 elastically cushioned



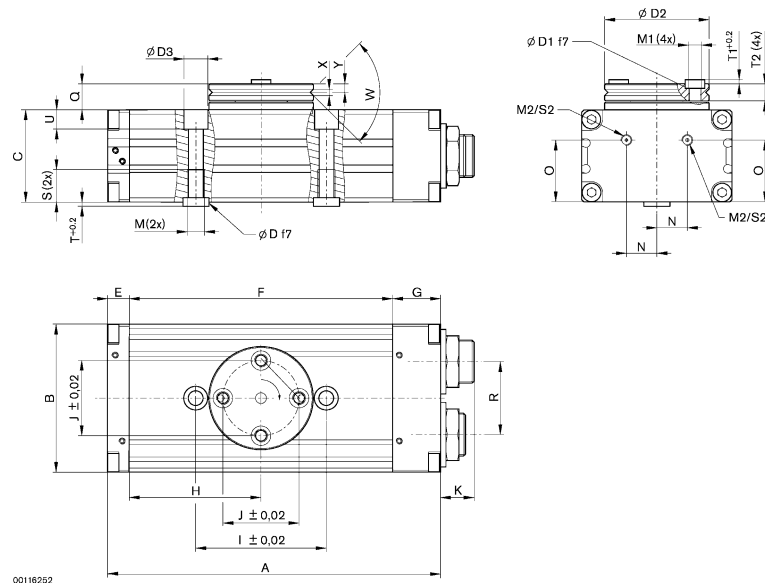
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Swivel unit, series RCM

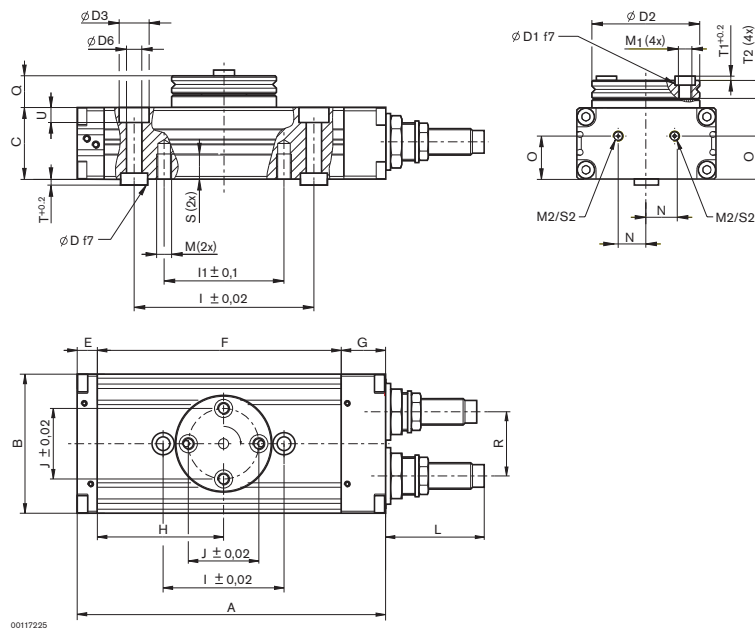
Elastically/hydraulically cushioned RCM 6 – 25

Rexroth
Bosch Group

RCM-08/-16/-20/-25 elastically cushioned



RCM-12 hydraulically cushioned

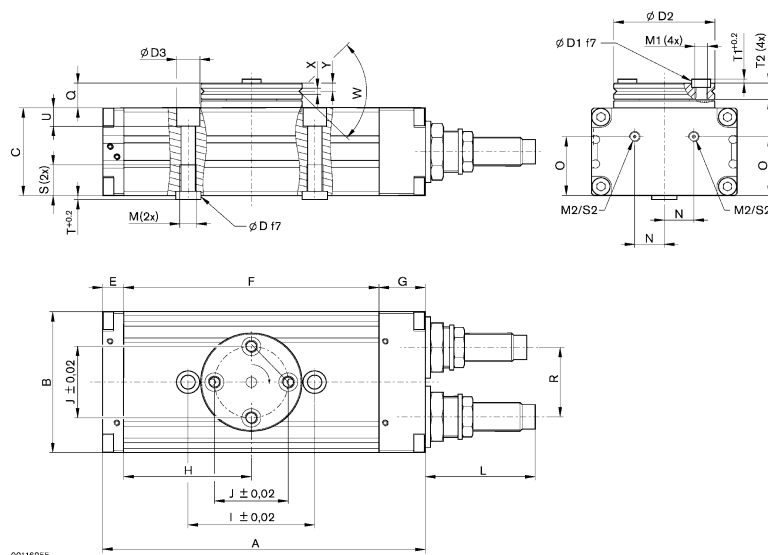


Swivel unit, series RCM

Elastically/hydraulically cushioned RCM 6 – 25

Rexroth
Bosch Group

RCM-16/-20/-25 hydraulically cushioned



Sizes	A	B	C	D	D1	D2	D3	D4	D5	D6	E	F	G	H	I	I1	J	K	L	M
RCM-06	71	31	17	Ø5	Ø5	Ø26	Ø5,7	-	-	Ø3,3	7	57	7	28,5	40	20	18	8,5	-	M 4
RCM-08	77	35	18	Ø7	Ø5	Ø28	Ø7,2	Ø1,5	Ø3	-	7	63	7	31,5	40	-	20	8,5	-	M 5
RCM-12	103	43	24	Ø9	Ø7	Ø35	Ø10	Ø2,5	Ø4,8	Ø5,1	9	80	14	40	60	40	25	11,5	29,5	M 5
RCM-16	108	52	32	Ø9	Ø7	Ø40	Ø10	Ø2,5	Ø4,8	-	10	80	18	40	60	-	30	14,5	58	M 6
RCM-20	114	58	37	Ø12	Ø7	Ø42	Ø11	Ø2,5	Ø4,8	-	9	86	19	43	60	-	30	12	37,5	M 8
RCM-25	153	69	43	Ø12	Ø9	Ø48	Ø11	Ø2,5	Ø4,8	-	10	121	22	60,5	60	-	35	15,5	52	M 8

Sizes	M1	M2	M3	N	O	P	Q	Q1	R	S	S2	S3	T	T1	T2	T3	U	V1	V2	V3
RCM-06	M 3	M 3	-	5,8	12,9	-	7,5	-	13,6	7	3	-	1,6	1,6	5	-	3	-	-	-
RCM-08	M 3	M 3	M 3	6,5	15	4	8	16,5	15	9,1	3	4	1,6	1,6	5	0,35	4	4,3	7,2	-
RCM-12	M 4	M 5	M 3	9	18	7	10,5	17	18	8,5	4	4	2,1	1,6	6	0,7	5	3,8	6,7	-
RCM-16	M 5	M 5	M 3	10	21	6	10	25,5	24	11,1	4	4	2,1	1,6	7	0,7	8	3,9	6,5	11,1
RCM-20	M 5	M 5	M 3	10	26	10	11	26	30	15,1	4	4	2,1	1,6	7	0,7	8	4,4	7	11,6
RCM-25	M 6	M 5	M 3	14	35,5	12	12	26,5	34	15,1	4	4	2,1	2,1	8	0,7	9	3,9	6,5	11,1

Sizes	V4	W	W1	X	Y
RCM-06	-	90°	-	2	2,4
RCM-08	-	90°	30°	2	2,4
RCM-12	-	90°	28°	2,5	2,9
RCM-16	13,7	90°	25°	2,5	3,3
RCM-20	14,2	90°	25°	3	3,3
RCM-25	13,7	90°	25°	3	4

Swivel unit, series RCM

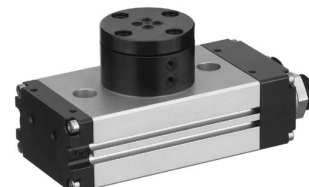
Elastically/hydraulically cushioned RCM 8 – 25 with air duct

Rexroth
Bosch Group



Technical Data

Type	Double-acting with two drive cylinders Power transmission and synchronization	
through	Rack and pinion	
Rotation angle	90°/180°	
Working pressure, max.	4 – 8 bar (58–116 psi)	
Temperature range	5 °C to +60 °C (41 °F to +140 °F)	
Medium	Compressed air, lubricated or oil-free (10 µm)	
Installation position	any	
Materials	Housing	Aluminum anodized
	Functional components	Die-cast aluminum



Application Area

Simple translation of the rectilinear movement of a piston into the rotary movement of a shaft
With proximity switching
Through central bore
Gear in dust-proof ball bearings
Greater forces of gravity have to be absorbed by external stops

Technical Information

Typ			RCM-8	RCM-12	RCM-16	RCM-20	RCM-25
Piston diameter		[mm]	8	12	16	20	25
Theoretical torque	(6 bar) (87 psi)	[Nm]	0,33	0,95	1,7	3,0	6,5
Connection thread			M 3	M 5	M 5	M 5	M 5
Air feed-through			2	2	4	4	4
min. swivel times (without load)	1x180°	[s]	0,04	0,06	0,10	0,15	0,20
Repeatability	elastic	[°]	0,2	0,2	0,2	0,2	0,2
	hydraulic	[°]	–	0,05	0,05	0,05	0,05
max. perm.axiales bearing load		[N]	280	330	490	620	1160
max. perm. radiales bearing load		[Nm]	210	290	400	560	1120
Torque cylinder weight	elastic	[kg]	0,19	0,49	0,79	1,02	1,85
	hydraulic	[kg]	–	0,52	0,89	1,13	2,02
Max. app. torque moment of inertia	elastic	[kg cm²]	0,25	0,90	1,80	3,20	6,50
	hydraulic	[kg cm²]	–	90	300	400	700
adjustment range		[°]	-20 + 6	-20 + 6	-20 + 6	-20 + 6	-20 + 6

Code no. for RCM-...-AP-SE elastically cushioning

Rotation angle [°]	RCM-8	RCM-12	RCM-16	RCM-20	RCM-25
90°	R412000377	R412000379	R412000381	R412000383	R412000385
180°	R412000378	R412000380	R412000382	R412000384	R412000386

Code no. for RCM-...-AP-SH hydraulically cushioning

Rotation angle [°]	RCM-8	RCM-12	RCM-16	RCM-20	RCM-25
90°	–	R412000387	R412000389	R412000391	R412000393
180°	–	R412000388	R412000390	R412000392	R412000394

Accessories

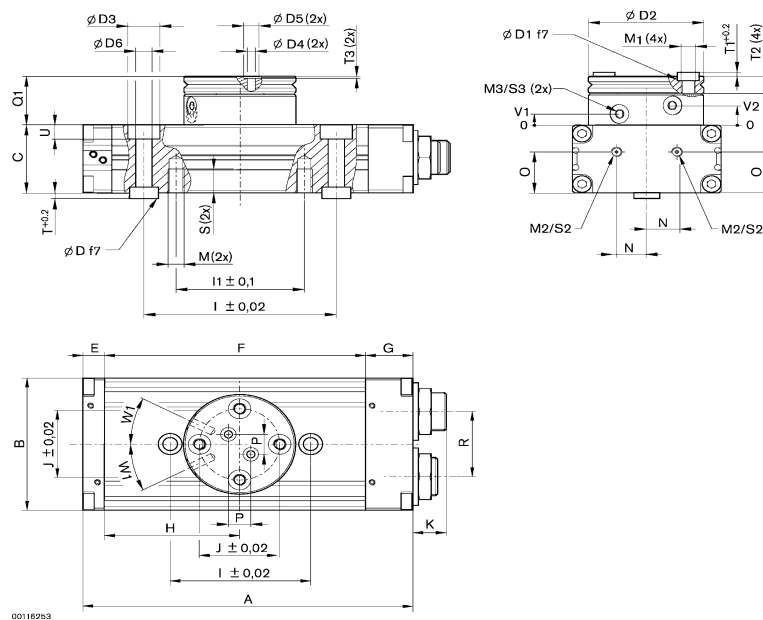
Cylinder switches	Designation	Technical data	Code no.
	Series Pico, electrically (Reed contact) M8	UB = 10–30 V AC/DC	0 830 100 440
	Series Pico, electrically (Reed contact) with 3 m cable.	Pmax = 3 W/VA	0 830 100 640
	Series Pico, electrically (Reed contact) with 5 m cable.	I _{max} = 100 mA	0 830 100 641
	Series Pico, Inductive sensor with M8	UB = 10–30 V DC	0 830 100 441
	Series Pico, Inductive sensor with 3 m cable.	I _{max} = 70 mA	0 830 100 642
	Series Pico, Inductive sensor with 5 m cable.		0 830 100 643

Swivel unit, series RCM

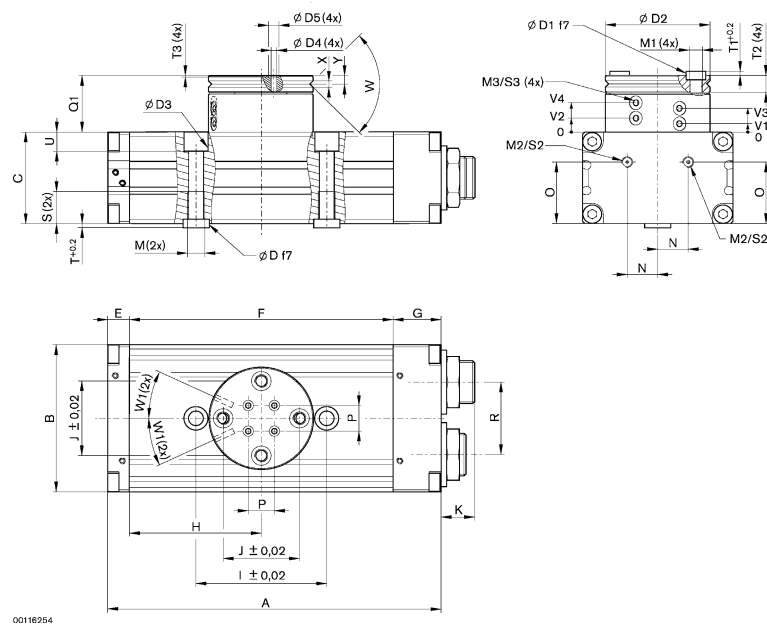
Elastically/hydraulically cushioned RCM 8 – 25 with air duct

Rexroth
Bosch Group

RCM-08/-12 elastically cushioned with 2x air duct



RCM-16/-20/-25 elastically cushioned with 4x air duct

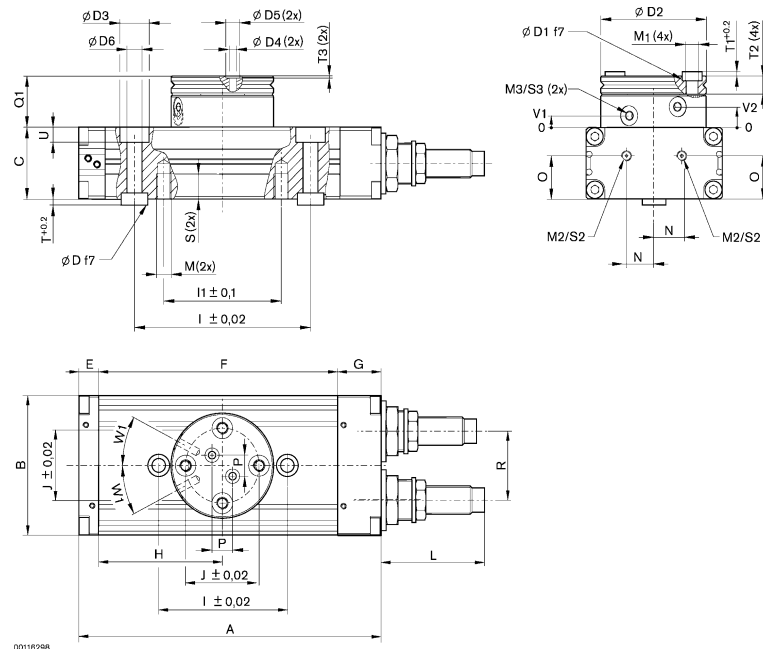


Swivel unit, series RCM

Elastically/hydraulically cushioned RCM 8 – 25 with air duct

Rexroth
Bosch Group

RCM-12 hydraulically cushioned with 2x air duct

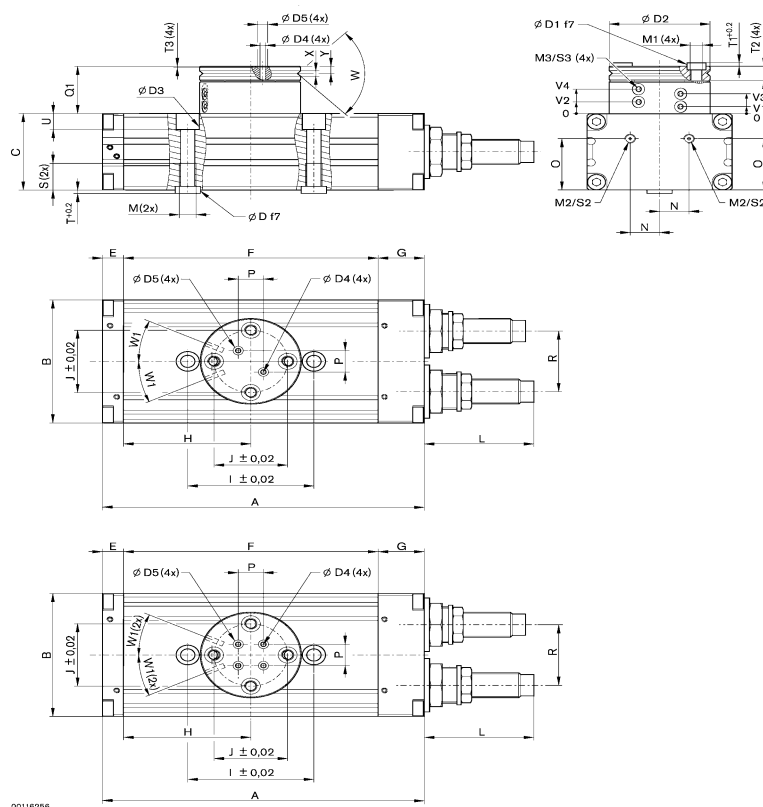


Swivel unit, series RCM

Elastically/hydraulically cushioned RCM 8 – 25 with air duct

Rexroth
Bosch Group

RCM-16/-20/-25 hydraulically cushioned with 4x air duct



00116256

Sizes	A	B	C	D	D1	D2	D3	D4	D5	D6	E	F	G	H	I	I1	J	K	L	M
RCM-06	71	31	17	Ø5	Ø5	Ø26	Ø5,7	-	-	Ø3,3	7	57	7	28,5	40	20	18	8,5	-	M 4
RCM-08	77	35	18	Ø7	Ø5	Ø28	Ø7,2	Ø1,5	Ø3	-	7	63	7	31,5	40	-	20	8,5	-	M 5
RCM-12	103	43	24	Ø9	Ø7	Ø35	Ø10	Ø2,5	Ø4,8	Ø5,1	9	80	14	40	60	40	25	11,5	29,5	M 5
RCM-16	108	52	32	Ø9	Ø7	Ø40	Ø10	Ø2,5	Ø4,8	-	10	80	18	40	60	-	30	14,5	58	M 6
RCM-20	114	58	37	Ø12	Ø7	Ø42	Ø11	Ø2,5	Ø4,8	-	9	86	19	43	60	-	30	12	37,5	M 8
RCM-25	153	69	43	Ø12	Ø9	Ø48	Ø11	Ø2,5	Ø4,8	-	10	121	22	60,5	60	-	35	15,5	52	M 8

Sizes	V4	W	W1	X	Y
RCM-06	-	90°	-	2	2,4
RCM-08	-	90°	30°	2	2,4
RCM-12	-	90°	28°	2,5	2,9
RCM-16	13,7	90°	25°	2,5	3,3
RCM-20	14,2	90°	25°	3	3,3
RCM-25	13,7	90°	25°	3	4

Sizes	M1	M2	M3	N	O	P	Q	Q1	R	S	S2	S3	T	T1	T2	T3	U	V1	V2	V3
RCM-06	M 3	M 3	-	5,8	12,9	-	7,5	-	13,6	7	3	-	1,6	1,6	5	-	3	-	-	-
RCM-08	M 3	M 3	M 3	6,5	15	4	8	16,5	15	9,1	3	4	1,6	1,6	5	0,35	4	4,3	7,2	-
RCM-12	M 4	M 5	M 3	9	18	7	10,5	17	18	8,5	4	4	2,1	1,6	6	0,7	5	3,8	6,7	-
RCM-16	M 5	M 5	M 3	10	21	6	10	25,5	24	11,1	4	4	2,1	1,6	7	0,7	8	3,9	6,5	11,1
RCM-20	M 5	M 5	M 3	10	26	10	11	26	30	15,1	4	4	2,1	1,6	7	0,7	8	4,4	7	11,6
RCM-25	M 6	M 5	M 3	14	35,5	12	12	26,5	34	15,1	4	4	2,1	2,1	8	0,7	9	3,9	6,5	11,1

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